

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A method for interference management of a processing communications satellite serving multiple user terminals in a satellite based cellular communications system, said method comprising:

receiving a request for service from a user terminal;

accessing ~~at least one communications system parameter selected from a~~ group database of communications system parameters ~~consisting of including user~~ terminal database parameters, antenna pattern parameters, spacecraft/antenna pointing error parameters, and link condition database parameters;

applying an algorithm to at least one communications system parameter from the database of communications system parameters to determine ~~determining a~~ connection parameter to minimize intra-system interference based in part upon the ~~selected database of communications system parameter parameters~~ for the user terminal;

allocating the connection parameter to ~~this~~ the user terminal; and

making a communications connection with the processing communications satellite by the user terminal using the connection parameter.

6. (original) The method as defined in claim 1 further comprising monitoring if the communications connection is still active.

7. (currently amended) The method as defined in claim 6 further comprising
redetermining the connection parameter for the user terminal based upon an updated
communications system parameter database of communications system parameters.

8. (previously amended) The method as defined in claim 1 wherein the
connection parameter is a frequency channel.

9. (original) The method as defined in claim 1 wherein the connection
parameter is a time slot.

10. (currently amended) The method as defined in claim 1 further comprising
updating the group database of communications system parameters after the
communications connection ends.

17. (previously amended) The method as defined in claim 19 further
comprising redetermining the frequency channel and time slot allocation after a
determination is made that the communications connection is still active.

19. (currently amended) A method for interference management of a
processing communications satellite serving multiple user terminals in a satellite based
cellular communications system, said method comprising:

receiving a request for service from a user terminal;

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~~accessing at least two of known a database of communications system parameters from including a user database, antenna pattern database, spacecraft/antenna pointing error database and link condition database;~~

~~applying an algorithm to at least one communications system parameter from the database of communications system parameters to determine determining a frequency channel and time slot parameter allocation for the user terminal to minimize~~

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~~intra-system interference based upon said two the database of communications system parameters;~~

~~allocating the frequency channel and time slot parameter to the user terminal;~~

~~making a communications connection by the user terminal using the frequency channel and time slot parameter;~~

~~periodically redetermining the frequency channel and time slot parameter allocation for the user terminal to continue to minimize intra-system interference; and updating the databases after the communication connection has ended.~~

20. (currently amended) The method as defined in claim 19 comprising including within the plurality database of communications system parameters location of active user terminals and frequency channel and time slots allocated to the active user terminals.